

There are cases where a Calc function produces a result in accordance with international standards but the result differs from that produced by the equivalent Excel function. In such cases Calc often has a similarly named function but with a suitable modifier added to its name (such as “_ADD” or “_EXCEL2003”) which provides the same result as the Excel function.

Understanding the structure of functions

All functions have a similar structure. If you use the right tool for entering a function, you can escape learning this structure, but it is still worth knowing for troubleshooting.

As a typical example, the structure of a function to find cells that match entered search criteria is:

```
= DCOUNT(Database, Database field, Search criteria)
```

A function cannot exist on its own; it must always be part of a formula. Consequently, even if the function represents the entire formula, there must be an = sign at the start of the formula. Regardless of where in the formula a function is, the function will start with its name, such as DCOUNT in the example above. After the name of the function comes its arguments. All arguments are required, unless specifically listed as optional.

Arguments are added within the parentheses and are separated by commas. A Calc function can take up to 255 arguments. An argument can be not only a number or a single cell, but also an array or range of cells that contain several or even hundreds of cells.

Depending on the nature of the function, arguments may be entered as in Table 11.

Table 11: Entering function arguments

Argument	Description
"text data"	The quotes indicate text or string data is being entered.
9	The number nine is being entered as a number.
"9"	The number nine is being entered as text.
A1	The address for whatever is in cell A1 is being entered.
B2:D9	The range of cells is being entered.

Nested functions

Functions can also be used as arguments within other functions. These are called nested functions.

```
=SUM(2, PRODUCT(5, 7))
```

To get an idea of what nested functions can do, imagine that you are designing a self-directed learning module. During the module, students do three quizzes, and enter the results in cells A1, A2, and A3. In A4, you can create a nested formula that begins by averaging the results of the quizzes with the formula =AVERAGE(A1:A3). The formula then uses the IF function to give the student feedback that depends upon the average grade on the quizzes. The entire formula would read:

```
=IF(AVERAGE(A1:A3) >85, "Congratulations! You are ready to advance to the next module", "Failed. Please review the material again. If necessary, contact your instructor for help")
```

Depending on the average, the student would receive the message for either congratulations or failure.